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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,332	10/20/2003	Goro Tamai	GP-302819	1376

7590 09/13/2005

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EXAMINER

BOTTORFF, CHRISTOPHER

ART UNIT PAPER NUMBER

3618

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/691,332	TAMAI ET AL.	
	Examiner	Art Unit	
	Christopher Bottorff	3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2, 4, 5, 9, and 10 rejected under 35 U.S.C. 102(e) as being anticipated by Bolz et al. US 6,919,648.

Bolz et al. disclose a vehicle powertrain control system comprising an electric motor drive system ISG and inverter 1, a first battery B1 coupled to the electric motor drive system, an electronically controlled switch S3 coupled to the first battery B1, and a second battery B2 coupled to the electronically controlled switch S3. See Figure 4. The electronically controlled switch S3 applies power from the second battery B2 to supplement the first battery B1. See column 7, lines 16-20.

A DC/DC converter 3 is coupled to the electronically controlled switch S3, wherein the electronically controlled switch S3 applies power from the DC/DC converter 3 to supplement the first and second batteries. That is, power in the DC/DC converter 3, which originates from second battery B2, will supplement first battery B1 when B2 is used to charge B1. See column 7, lines 16-20. Furthermore, power in the DC/DC converter 3, which originates from first battery B1 or the generator, will supplement the second battery B2 during charging of B2. See column 7, lines 13-16. Also, the first and second batteries comprise lead acid batteries and an inverter 1 is coupled to a motor of the motor drive system. See column 6, lines 27 and 44-45.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bolz et al. US 6,919,648 in view of Rose, Sr. US 6,472,790.

Bolz et al. do not disclose that the motor is an induction type motor. However, Rose, Sr. teaches the desirability of providing the motor portion of a starter generator as an induction type motor. See column 5, lines 22-28, and column 1, lines 20-21. From this teaching of Rose, Sr., providing the motor portion of the starter generator of Bolz et al. as an induction type motor would have been obvious to one of ordinary skill in the art

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at the time the invention was made. This would utilize a motor type with performance characteristics that are well established and reliable.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bolz et al. US 6,919,648 in view of Beyn US 4,687,983.

Bolz et al. do not disclose that the electronically controlled switch comprises a silicon conducting rectifier. However, Beyn teaches the desirability of providing an electronically controlled switch as a silicon conducting rectifier. See column 5, lines 40-57. From this teaching of Beyn, providing the electronically controlled switch of Bolz et al. as a silicon conducting rectifier would have been obvious to one of ordinary skill in the art at the time the invention was made. This would utilize a switch type with performance characteristics that are well established and reliable.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bolz et al. US 6,919,648 in view of Kodama et al. US 6,522,105.

Bolz et al. do not disclose that the electronically controlled switch comprises a transistor. However, Kodama et al. teach the desirability of providing an electronically controlled switch as a transistor. See column 13, lines 35-38 and 62-65. From this teaching of Kodama et al., providing the electronically controlled switch of Bolz et al. as a transistor would have been obvious to one of ordinary skill in the art at the time the invention was made. This would utilize a switch type with performance characteristics that are well established and reliable.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bolz et al. US 6,919,648 in view of Kenyon US 4,438,342.

Bolz et al. do not disclose that the electronically controlled switch comprises an electromechanical relay. However, Kenyon teaches the desirability of providing an electronically controlled switch as an electromechanical relay. See column 3, lines 63-68. From this teaching of Kenyon, providing the electronically controlled switch of Bolz et al. as an electromechanical relay would have been obvious to one of ordinary skill in the art at the time the invention was made. This would utilize a switch type with performance characteristics that are well established and reliable.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Imaizumi, Sakai et al., Kawaguchi et al., Esaki et al., Tamai et al., Ono et al., Hoang et al., Saito et al., Gale et al., and Ishii et al. disclose power control systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Bottorff whose telephone number is (571) 272-6692. The examiner can normally be reached on Mon.-Fri. 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Bottorff